Task:
Find out the highest precipitation record each day for a particular city.
Compare different cities' highest precipitation records.
Compare the trend of the highest precipitation in different cities.
Analyze the precipitation normality of the city(Is there usually only drizzle or heavy rain in this city).

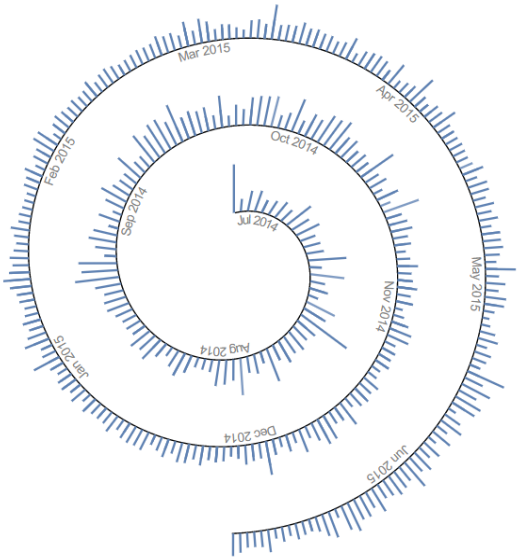
Design Overview:

The main body of this data visualization is a spiral graph, and the corresponding data used is time series data. The graph starts on July 1, 2014, and ends on June 30, 2015, which is exactly one year of data. Only the daily maximum precipitation records are used in this graph, but the data for different cities can be accessed by using the dropdown in the lower left corner. The bar in the Spiral graph does not use various colors to distinguish cities, because the number of cities used in this project is limited and the steel blue can represent the color of rain. In addition, I added a tooltip to show detailed dates and records of the highest precipitation in order for users to see accurate and detailed information. They only need to hover their mouse over the bar of the data they want to check.

Personally, I think the main purpose of this visualization is to find the highest precipitation on a given day and to compare the standard values of precipitation in different cities, e.g. KSEA basically has only light rain throughout the year since 1880, while PHL often has moderate to heavy rain. At the same time, I think the most distinctive characteristic of this visualization is the novelty of using spiral graphs instead of the usual bar charts or line charts.

Daily record for the highest precipitation since 1880

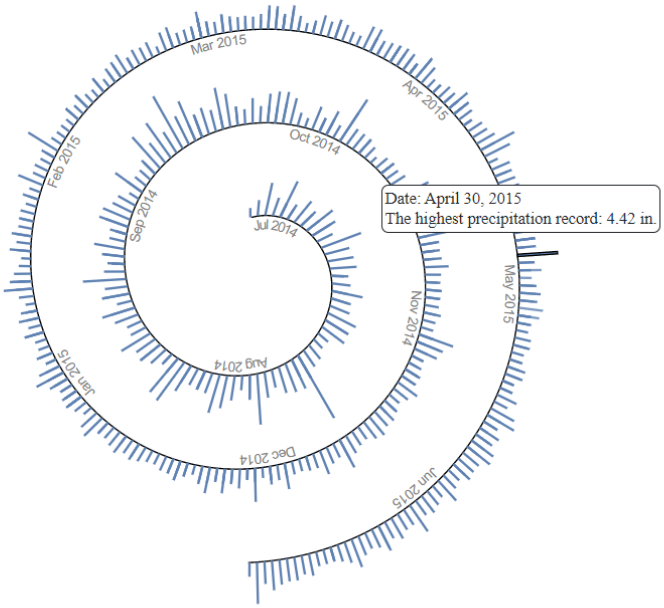
From 2014 July to 2015 June



City: CLT

Daily record for the highest precipitation since 1880

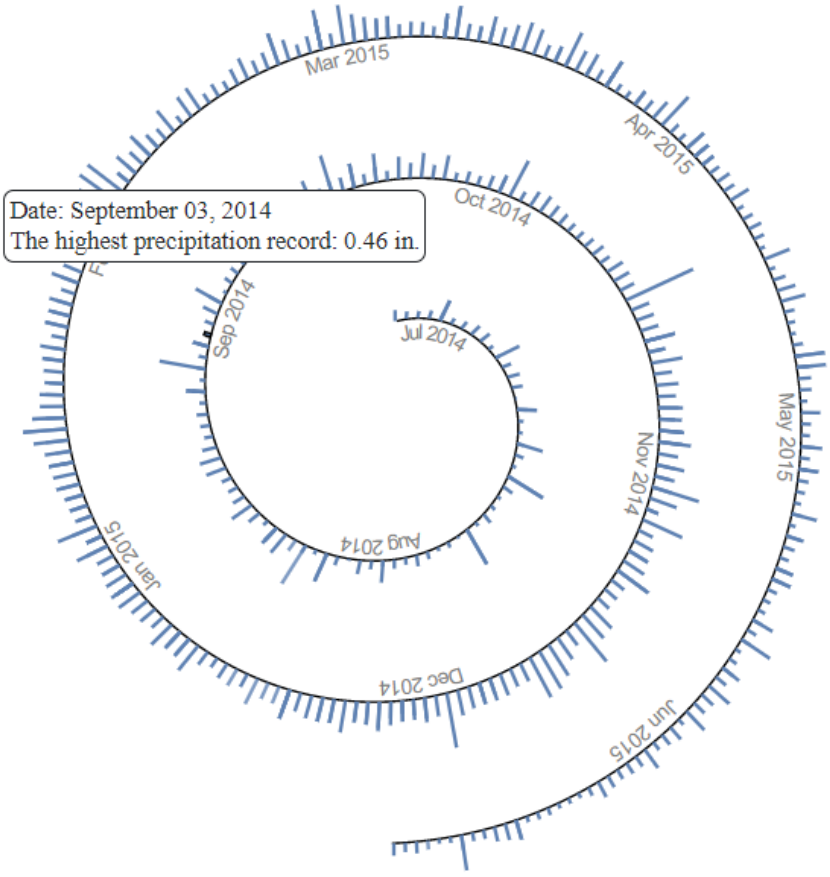
From 2014 July to 2015 June



City: PHL

Daily record for the highest precipitation since 1880

From 2014 July to 2015 June



City: KSEA